

DBB 1/22/02 3382-58687 MS17722.5 old oc #777.115USR

PATENT

selecting an instance of the connection point interface from among the instances of the connection point interface of the source object, wherein the selection of the instance is based upon the interface identifier indicated in the receive request;

sending a reference to the selected connection point interface instance;

receiving, through the selected connection point interface instance, a request to connect the source object and the sink object, the request having a reference to the notification interface instance of the sink object; and

storing the reference to the notification interface instance, wherein the source object communicates with the sink object using the stored reference to the notification interface instance.

17. (Once amended) The method of claim 16 wherein the step of selecting the instance of the notification interface is performed under the control of the sink object.

27. (Once amended) A method in a computer system for generating an object connection between a source object and a sink object, the sink object implementing a plurality of notification interfaces for communicating with the sink object, each notification interface having an associated interface identifier, the source object having instances of a connection point interface, each instance of the connection point interface having an associated interface identifier, the method comprising the steps of:

selecting a notification interface from among the plurality of notification interfaces of the sink object;

selecting an instance of the connection point interface of the source object, the selected instance having an associated interface identifier that corresponds to the interface identifier associated with the selected notification interface of the sink object;

DBB 1/22/02 3382-58687 MS17722.5 old ac #777.115USR

PATENT

using the selected connection point interface instance to request that the source object and the sink object be connected, wherein the request has a reference to an instance of the selected notification interface of the sink object; and

storing the reference to the instance of the selected notification interface, so that the sink object can be notified by the source object.

45. (Once amended) The system of claim 44 wherein the plurality of connection points of each source object is stored within a connection point container, and wherein the means for selecting a connection point uses the connection point container to determine which connection point to select.

46. (New) A computer-readable medium having computer-executable instructions for performing steps to generate an object connection between a source object and a sink object, the sink object implementing a plurality of notification interfaces for communicating with the source object, each notification interface having an associated interface identifier, and the source object having instances of a connection point interface identifier, each instance of the connection point interface having an associated interface identifier, the steps comprising:

selecting a notification interface from among the plurality of notification interfaces of the sink object;

selecting an instance of the connection point interface of the source object, the selected instance having an associated interface identifier that corresponds to the interface identifier associated with the selected notification interface of the sink object;

using the selected connection point interface instance to request that the source object and the sink object be connected, wherein the request has a reference to an instance of the selected notification interface of the sink object; and

DBB 1/22/02 3382-58687 MS17722.5 old oc #777.115USR

PATENT

storing the reference to the instance of the selected notification interface, so that the sink object can be notified by the source object.

47. (New) A computer-readable medium having stored thereon an object connection architecture comprising:

a plurality of sink objects, each sink object having a notification function member for communicating with the sink object from a source object; and

a plurality of source objects, each source object having a connection point object, each connection point object storing a notification function member and returning an identification of the notification function member upon request.

48. (New) A computer-readable medium having computer-executable instructions for causing a computer system to dynamically connect source and sink objects by:

communicating with a sink object from the source object via a notification interface;

storing a plurality of notification interfaces referenced by a plurality of connection point objects wherein each source object is coupled to a connection point object; and

returning an identification of one of the notification interfaces from the stored plurality of notification interfaces upon request.

49. (New) A computer-readable medium having computer-executable instructions stored thereon for causing a computer system to connect a source object and a sink object, the sink object having an instance of a notification interface for receiving communications from the source object, the notification interface having an associated interface identifier, the source object having instances of a connection point interface, each instance of the connection point interface having an associated interface identifier, the computer system directed by said instructions to perform the steps comprising:

receiving a request to identify instances of the connection point interface;

DBB 1/22/02 3382-58687 MS17722.5 old ac #777.115USR

PATENT

sending a reference to each instance of the connection point interface, wherein from each reference the sink object obtains an indication of the interface identifier associated with the instance;

receiving, through one of the instances of the connection point interface, a request to connect the source object and the sink object, the request having a reference to the notification interface instance of the sink object, wherein the interface identifier associated with the receiving connection point interface corresponds to the interface identifier associated with the notification interface of the sink object; and

storing the reference to the notification interface instance, wherein the source object communicates with the sink object using the stored reference to the notification interface instance.

50. (New) A computer-readable medium having computer-executable instructions for causing a computer system to dynamically notify a sink object from a source object, each sink object having a notification interface, each source object having a connection point for referencing one or more notification interfaces, the computer system performing a method comprising:

selecting a notification interface of the sink object;

selecting a corresponding connection point of the source object, the selection based upon the notification interface that is selected;

connecting the connection point selected and the notification interface selected, wherein a reference to the selected notification interface is stored by the selected connection point; and

invoking the selected notification interface referred to by the stored reference to effect notification of the sink object.

DBB 1/22/02 3382-58687 MS17722.5 old oc #777.115USR

PATENT

51. (New) A computer system for dynamically connecting objects, the system comprising:

a plurality of sink objects, each sink object having a notification interface for communicating with the sink object from the source object; and

a plurality of source objects, each source object having a connection point object, each connection point object storing a notification interface and returning an identification of the notification interface upon request.

52. (New) A computer system for notifying a sink object from a source object, the computer system having a plurality of sink objects and source objects, each sink object having a notification interface, each source object having a connection point for storing one or more notification interfaces, the system comprising:

means for selecting a notification interface;

means for selecting a corresponding connection point, the selection based upon the notification interface that is selected by the notification interface selection means;

means for connecting the connection point selected by the connection point selection means and the notification interface selected by the notification interface selection means, wherein a reference to the selected notification interface is stored within the selected connection point; and

means for invoking the selected notification interface referred to by the stored reference to effect notification of the sink object.

53. (New) A computer readable medium having objects stored thereon for causing a computer system to dynamically connect objects, the objects stored on the medium comprising:

a plurality of sink objects, each sink object having a notification interface for communicating with the sink object from the source object; and